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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,170	04/02/2004	Scott Garner	022232-9041-01	2726

23409 7590 08/14/2007  
MICHAEL BEST & FRIEDRICH LLP  
100 E WISCONSIN AVENUE  
Suite 3300  
MILWAUKEE, WI 53202

EXAMINER
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AFZALI, SARANG

ART UNIT	PAPER NUMBER
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3726

MAIL DATE	DELIVERY MODE
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08/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/817,170	GARNER, SCOTT	
	Examiner	Art Unit	
	Sarang Afzali	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 6/7/2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 2-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 8-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/2/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20040813</u> .  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1 and 8-10 in the reply filed on 6/7/2007 is acknowledged.

***Specification***

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: A METHOD FOR FORMING A HEAT DISSIPATION DEVICE WITH CONTACT HEAT PIPE.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1 and 8-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 1, line 5, the limitation "heat pipe" is unclear as to whether the applicant is claiming a single piece of a pipe/tube or is claiming an assembly which is known in the art as the "heat pipe" that also includes a tube.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 8-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kalloch, Jr. (US 1,787,942).

As applied to claims 1 and 8-10, Kalloch Jr. teaches a method for forming a heat transfer device for dissipating heat comprising the steps of:

arranging a plurality of fins (2, Fig. 1) that are formed with openings collar raised around at least part of the opening (apertures 3 with flange 4, Fig. 2) that substantially align with one another so as to define a die;

driving (page 2, lines 3-10) a heat pipe comprising a thermally conductive envelope (tube 1 made of copper including a thermally conductive envelope, page 1, lines 92-93) into said die so as to deform said envelope thereby forming at least one flattened surface and wherein an outside shape of said thermally conductive envelope is complementary with said openings (Fig. 4); and

substantially exclusively supporting said fins upon said thermally conductive envelope such that said thermally conductive envelope substantially defines a mounting base for said heat transfer device, and is attachable to a heat source for thermal energy exchange with said heat source (Fig. 4).

Note the forming surface (inside of the apertures 3, Figs. 2-4) defined by the plurality of fins (Fig. 1) is used while driving the thermally conductive envelope by means of mandrel (6) in order to change the outside shape of the heat pipe (1).

Regarding the limitations "defines a mounting base" and "attachable to a heat source", note that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Thus, Kalloch, Jr. is capable of performing the intended use and therefore meets the claimed invention.

As applied to claims 11 & 12, Kalloch Jr. teaches the invention cited including forming a stack of spaced-apart fin from substantially parallel flat sheets (Fig. 1, page 1, lines 93-95).

As applied to claim 13, Kalloch Jr. teaches the invention cited including deforming the thermally conductive envelope by contact with the fins (Fig. 4).

As applied to claim 14, Kalloch Jr. teaches the invention cited including aligning the openings in the fins to define a channel, and wherein the channel has a reduction in channel width for at least partially defining the outside shape of the heat pipe (Fig. 1, page 1, lines 54-59).

As applied to claim 15, Kalloch Jr. teaches the invention cited including forming the conductive envelope to define an oval cross-section having a flattened surface on at least one side Fig. 4, page 2, lines 4-6).

**Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarang Afzali whose telephone number is 571-272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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8/9/2007



DAVID P. BRYANT  
SUPERVISORY PATENT EXAMINER

8/9/07